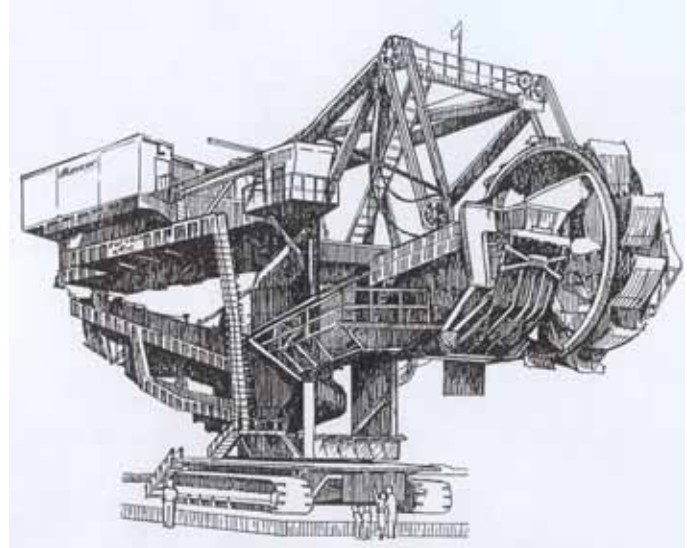


"CYRUS" THE BUCKETWHEEL EXCAVATOR 1303

"Cyrus", the Bucketwheel Excavator 1303 was donated to the Oil Sands Discovery Centre by Suncor Energy, in 1988. The Friends of the Oil Sands Discovery Centre undertook a major fundraising project to bring the artifact from the Suncor mine site to its new home at the Centre. It took four years, \$1 million, hundreds of volunteer hours, and many donations of services to complete the project. Officially unveiled on September 19, 1992, Cyrus represents an important piece of oil sands history.



Manufactured by Bucyrus-Erie Company of South Milwaukee, Wisconsin, in 1963. Originally used in Los Banos, California, in construction of an earthen dam.

Purchased by Great Canadian Oil Sands (GCOS), now Suncor Energy, in 1971. It was used until 1983 for overburden removal and mining operations, and was then retired in 1984 because of high maintenance requirements.

Disassembly of the machine began in January 1991. It took eleven weeks to break it into six massive pieces, which were transported on a 144-wheel, 45 metre-long trailer. Travel was done at night during the winter when the frozen roads could support the weight of the heavy loads.

The machine was reconstructed in 3 months by a crew of Suncor employees using three huge cranes.

Operating weight is 773,000 kilograms (850 tons) - the weight of over 500 mid-sized cars.

"Cyrus" was powered by electricity, requiring 18 megawatts -- equal to the power used by 600 homes. The cable reel car (the vehicle located behind the bucketwheel) controlled the slack on the machine's electrical cable.

The operating crew consisted of three people: bucketwheel operator, oiler, and cable reel car operator.

"Cyrus" stands 6 storeys tall, and is one of Canada's largest land based artifacts.

"CYRUS" BUCKETWHEEL EXCAVATOR 1303, Continued:

Manufacturer:	Bucyrus-Erie Company
Customer:	Suncor Energy (formerly Great Canadian Oil Sands Ltd.)
Years of construction:	1963-1964
Service weight:	737,100 kilograms
Wheel diameter:	9.15 metres
Number of buckets:	10
Bucket capacity:	1,913 litres
Maximum discharges per minute:	80
Maximum cutting speed:	230 metres/minute
Maximum capacity:	5,371 cubic metres/hour
Maximum cutting height:	12.2 metres
Maximum cutting depth:	61 centimetres
Width of wheel boom conveyor:	213 centimetres
Length of wheel boom:	18.3 metres
Length of discharge boom:	19.2 metres
Mean ground pressure:	23,060 kg/square metre
Supply voltage:	460 volts DC
Bucket wheel drive power:	560 kilowatts
Total installed power:	1809 kilowatts